

Appl. No. 10/676,858
October 25, 2005
Response to Office action of July 27, 2005

REMARKS

Claims 1-27 and 58-75 remain in this application. Claims 28-57 have been withdrawn.

The examiner has acknowledged that claims 70-75 are directed to allowable subject matter. Claims 28-57 have been withdrawn as the result of an earlier restriction requirement.

In view of the examiner's earlier restriction requirement, the applicants retain the right to present claims 28-57 in a divisional application.

I. CLAIM REJECTIONS – 35 USC § 102

A. Examiner's Statements

The examiner rejected claims 1-4, 7, 12, 13, and 58-62 under 35 U.S.C. § 102(b) as being anticipated by Misselbrook et al. (U.S. Patent No. 5,984,011).

B. Law

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.¹ The identical invention must be shown in as complete detail as is contained in the ... claim.² To establish inherency, the extrinsic evidence "must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient."³ Thus, the fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish inherency of that result or characteristic.⁴ In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art.⁵ In addition to disclosing every claim limitation, an anticipatory prior art reference must enable the practice of the invention and

¹ *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987).

² *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989).

³ *In re Robertson*, 169 F.3d 743, 745, 49 U.S.P.Q.2d 1949, 1950-51 (Fed. Cir. 1999).

⁴ *In re Rijckaert*, 9 F.3d 1531, 1534, 28 U.S.P.Q.2d 1955, 1957 (Fed. Cir. 1993).

⁵ *Ex parte Levy*, 17 U.S.P.Q.2d 1461, 1464 (Bd. Pat. App. & Inter. 1990).

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describe it sufficiently to have placed it in the possession of a person of ordinary skill in the field of the invention.⁶

C. Claims 1-4, 7, 12, 13, and 58-62

Claims 1-4, 7, 12, 13, and 58-62 of the present application require that the wellbore drilling operations continue while the cuttings are removed. Misselbrook et al., however, teaches ceasing drilling, opening a valve, and increasing the flow rate to a critical level to bypass the drilling motor and sweep out any cuttings that have accumulated in the wellbore while the drilling is ceased:

“A key aspect of the present invention includes establishing, and using apparatus to establish, in a wellbore for a significant period of time a high enough fluid flow rate to create a “critical level” of flow for fluids transporting cuttings through at least a deviated or horizontal portion of the wellbore. Study of cuttings beds problems shows that if a fluid transporting cuttings achieves what is referred to as a “critical” level of flow, a flow that may for instance exhibit a critical level of momentum transfer, especially if this critical level of flow occurs while further cuttings are not being created, then essentially all of a “cuttings bed” can be cleared from a horizontal wellbore in quite a competitive period of time. It has been estimated, for instance, that a removal rate of approximately one foot per second (or sixty feet per minute) can be achieved by “critical flow” without drilling. Ceasing drilling during this period of critical level of flow is compatible both with not creating further cuttings and with not reeling coiled tubing when it is placed under quite high deferential pressure at surface.”⁷

“A coiled tubing drill string when drilling a horizontal portion of a well will likely predominately [sic] lie, due to gravity, on the lower side of the horizontal wellbore. During drilling the weight of the coiled tubing will be “held” at surface and “managed” to maximize drilling performance, or rate of penetration. Only partial weight, typically, is “set down” on the bit while drilling. While not drilling, the weight-on-bit can be managed to enhance cuttings bed removal. Cuttings bed removal in a horizontal portion of a wellbore may be enhanced if the string is encouraged to helix in the wellbore rather than to lie predominantly on the lower side of the wellbore. Helixing of coiled tubing in the wellbore may be encouraged by managing the weight-on-bit, and in particular by likely setting down more weight. One aspect of the present invention involves managing the weight-on-bit to enhance cuttings bed removal.”⁸

“The present invention covers method and apparatus for removing drill cuttings from a deviated wellbore. The method includes drilling a wellbore with coiled tubing; ceasing drilling while pumping fluid down the tubing into the wellbore at a flow rate

⁶ *In re Paulsen*, 30 F.3d 1475, 1478-79 (Fed. Cir. 1994).

⁷ Misselbrook et al., column 2, line 54 – column 3, line 5. (emphasis added).

⁸ Misselbrook et al., column 4, lines 19-34. (emphasis added).

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greater than a flow rate range used for drilling; and removing cuttings from a portion of the wellbore by circulating at least a portion of the pumped fluid up the wellbore.”⁹

Thus, Misselbrook et al. does not disclose removing cuttings while the drilling operations continue as required by claims 1-4, 7, 12, 13, and 58-62. The applicants therefore respectfully submit that the rejection is unsupported by the art and request that the examiner withdraw the rejection with respect to claims 1-4, 7, 12, 13, and 58-62.

II. ALLOWABLE SUBJECT MATTER

The examiner stated that claims 70-75 are allowed.

The examiner stated that claims 5, 6, 8-11, 14-27, 63-69 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The applicants respectfully submit that base claims 1, 7, and 58 are in condition for allowance as discussed above. Therefore, the applicants respectfully request that the examiner remove the objections to claims 5, 6, 8-11, 14-27, 63-69.

III. STATEMENT REGARDING CLAIMS

The applicants have argued the allowability of the claims by addressing the comments by the examiner in this paper as well as previously during the prosecution of this application. By doing so, the applicants are in no way limiting their ability to argue additional points of novelty regarding the independent claims or dependent claims at a later date.

CONCLUSION

The applicants respectfully request reconsideration the pending claims and that a timely Notice of Allowance be issued in this case. If the examiner feels that a telephone conference would expedite the resolution of this case, he is respectfully requested to contact the undersigned.

In the course of the foregoing discussions, the applicants may have at times referred to claim limitations in shorthand fashion, or may have focused on a particular claim element. This discussion should not be interpreted to mean that the other limitations can be ignored or dismissed. The claims must be viewed as a whole, and each limitation of the claims must be considered when determining the

⁹ Misselbrook et al., column 4, lines 38-45. (emphasis added).

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patentability of the claims. There may also be other distinctions between the claims and the prior art that have yet to be raised, but that may be raised in the future.

Unless the applicants have specifically stated that an amendment was made to distinguish the prior art, it was the intent of the amendment to further clarify and better define the claimed invention and the amendment was not for the purpose of patentability. Further, although the applicants may have amended certain claims, the applicants have not abandoned its pursuit of obtaining the allowance of these claims as originally filed and reserves, without prejudice, the right to pursue these claims in a continuing application.

If any fees are inadvertently omitted or if any additional fees are required or have been overpaid, please appropriately charge or credit those fees to Conley Rose, P.C. Deposit Account Number 03-2769 (ref. 1391-28401) of Conley Rose, P.C., Houston, Texas.

Respectfully submitted,
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